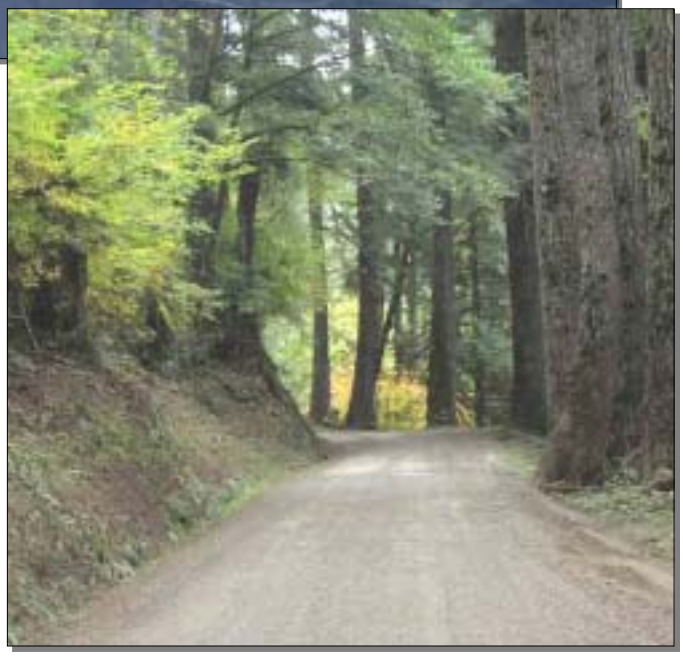
Willamette National Forest

Road Analysis Report



January 2003

FORWARD

Willamette National Forest
Forest Roads Analysis
January 2003

In July 1998 the Willamette National Forest was one of six National Forests selected to test different approaches to analyzing and documenting an analysis of Forest Service roads. The approach the Willamette tested was a forest-scale analysis following a six-step process. The Forest completed the roads analysis in October 1998. In addition to the actual roads analysis, the final document also included a critique of the six-step analysis process. The review and critique aspect of the pilot project is evident in several sections of the following document.

In August 1999 the Forest Service publication, Misc. Rep. FS-643, Roads Analysis: Informing Decisions about Managing the National Forest Transportation System was released. This document described a road analysis procedure using essentially the same six-step process used in doing the Willamette National Forest Pilot Roads Analysis.

In January 2001 the Forest Service adopted a final policy for the national forest transportation system. Included in the final policy was a requirement that all road management decisions for National Forest System roads be informed by a scientific-based roads analysis. The six-step process described in FS-643 was used as an example of the type of scientific-based analysis process envisioned by the new policy. The 2001 transportation policy also required each national forest to complete a forest-scale roads analysis by January 13, 2003.

The roads analysis/forest interdisciplinary team has reviewed the roads analysis document several times since October 1998. In 1999 when publication FS-643 was released, the IDT reviewed the six step process with the process used for the pilot analysis and verified that the two process were very similar if not identical in most regards. In August 2001, based on concerns identified during the initial analysis regarding the availability of social information relating to forest roads, the social assessment, Appendix J, was updated. Most recently in 2002, the forest transportation system of Key Travel Routes or Key Forest Roads was updated to reflect adjustments in management emphasis, land allocations, etc. since the initial analysis in 1998. This update is found in the update section of the document and on an updated map.

The intent of the Willamette NF Management Team is to continue to maintain the Forest Roads Analysis as a “living document” by periodically reviewing and updating the documentation as needed. For this reason, the loose-leaf, three-ring binder style of document is used to more easily accommodate on-going updates and changes to the document.

Update - December 2002
Key Forest Roads

I. BACKGROUND

On June 27, 1995 the Willamette Access and Travel Management (ATM) Guide was implemented under a cover letter signed by the Forest Supervisor. The letter directed the forest to identify key forest travel routes as per the guidelines and selection criteria for what was referred to as the Primary/Secondary Transportation Network in the 1995 ATM guide. During the summer of 1995, the Primary/Secondary network was identified, reviewed, and adjusted with extensive input from the districts. It was made into a GIS map and distributed.

The 1998 Willamette Pilot Roads Analysis adopted the 1995 Primary/Secondary road system as the network of Key Forest Travel Routes (Section 4.1.4). The Roads Analysis identified that these roads are needed for long-term management of the National Forest. They are the priority roads that are maintained opened for vehicular traffic. They provide the long-term linkages and inter-forest connections necessary to meet forest management objectives. It stated that the long-term status of the remaining roads, not designated as a Key Route, would be evaluated at the project or watershed scale to determine whether they should remain as intermittent use roads or decommissioned. Such roads would be generally considered candidates for reduction in maintenance standards, stabilization, closure or decommissioning.

Seven years have passed since the system of Key Forest Roads was first identified. During May of 2002, the 1995 Primary/Secondary road system was reviewed, road-by-road, by each district and updated within the context of the Northwest Forest Plan and current transportation policy in FSM7700. The resulting system is now referred as the network of **"Key Forest Roads."** The old ATM nomenclature of "Primary" and "Secondary" are hereby dropped.

II. KEY FOREST ROADS: Not a Decision

Roads analysis is not a decision process. The objective of roads analysis is to provide line officers with critical information for the operation and maintenance of a safe and affordable road system that is responsive to public needs and meets land management objectives with minimal negative ecological effects on the land. The network of **Key Forest Roads**, therefore, does not represent a decision. It can be changed and adjusted over time to respond to changing circumstances such as budgets, land management objectives or other management opportunities.

III. BUDGET CONSIDERATIONS

The direction in FSM 7703 states that it is the policy to determine and provide for the minimum forest transportation system that best serves forest management objectives as identified in appropriate land and resource management plans. The policy also states that it is important that roads analysis consider access needs in relation to realistic funding levels. Based on funding levels and maintenance costs derived for the Pilot

Roads Analysis, there is a $1.2MM annual budget short fall if the network of **Key Forest Roads** are fully maintained to their current objective maintenance levels. See Table 1.

Though the network of **Key Forest Roads** is not the minimum transportation system from a budget standpoint, it is thought to be the minimum system of routes needed to meet anticipated forest management objectives and public access needs. It is likely that maintenance standards could be reduced on a portion of the **Key Forest Roads** and still meet forest management objectives. For example, the highest maintenance cost is $1.13MM for the object maintenance level 3 roads. Maintenance standards, and thus costs, of the level 3 roads (maintained for passenger cars) may be reduced to level 2 (maintained for pickup trucks). The forest-scale analysis is too broad to assess opportunities to change maintenance standards on specific roads, however this issue should be brought forward and evaluated during district, watershed, or project planning.

Table 1. Estimated Annual Maintenance Costs to Maintain Roads to Standard.

Maintenance Level Description	Forest Total Miles	Key Forest Roads Miles	*AM $/Mi	AM Needs for Current Forest Network	AM Needs for Key Forest Roads
1 - BASIC CUSTODIAL CARE (CLOSED)	751	4,025	$25/mile	$18,775	$100,625
2 - HIGH CLEARANCE VEHICLES	4,230	1,038	250	$1,057,500	$259,500
3 - SUITABLE FOR PASSENGER CARS	1,205	1,134	1,000	$1,205,000	$1,134,000
4 - MODERATE DEGREE OF USER COMFORT	113	108	1,900	$214,700	$205,200
5 - HIGH DEGREE OF USER COMFORT	244	238	3,750	$915,000	$892,500
	6,543	6,543		$3,410,975	$2,591,825

***Costs derived from maintenance contracts and force account costs for annual maintenance. Estimated annual maintenance funding level of $1.4. (See Section 4.2.2 of 1998 Pilot Roads Analysis.)**

IV. KEY FOREST ROADS: Selection Guidelines

The goal of the network of **Key Forest Roads** is to provide sustainable access to National Forest System lands for administration, protection, and utilization in a manner consistent with Forest Plan guidance and within the limits of current and likely funding levels.

Key Forest Roads are the roads most traveled to sites within the Forest. They will provide the majority of forest visitor, administrative, commercial, research and other travel needs. These roads will be identified as the key roads to important destination points and provide a network of vital inter-forest connections. They lead recreationists, resource managers, permittees, landowners, commercial users, and emergency services along direct routes into and across necessary areas of the Forest.

A **Key Forest Road** should be operated and maintained to standard consistent with its road management objective. The public will be encouraged to use the system of **Key Forest Roads** for access into and through the Forest.

There are two general categories of **Key Forest Roads**:

1. National Forest System roads that are subject to the Highway Safety Act (FSM 7705). These roads are generally open for use by the public for the standard passenger car. These roads are assigned an Objective Maintenance Level of 3, 4 or 5 as described in the Transportation System Maintenance Handbook (FSH 7709.58).

2. National Forest System roads that are not subject to the Highway Safety Act. These roads are generally rough and opened for use by high clearance vehicles such as the standard pickup truck. These roads are assigned an Objective Maintenance Level of 2 as described in the Transportation System Maintenance Handbook (FSH 7709.58).

Selection Guidelines for a **Key Forest Road** subject to the Highway Safety Act:

- Roads that connect high-use entry points or population centers and provide major access into and through the forest.
- Roads that link with state and county roads: Among road alternatives, select the one that favors the greatest use of state and county road systems.
- Roads that provide the most extensive linkage to roads open for use by high clearance vehicles.
- Roads that are designated as scenic byway or route.
- Roads that provide access to areas where high-use recreation is encouraged.

Selection Guidelines for a **Key Forest Road** not subject to the Highway Safety Act:

- Roads that give the best access to management areas outside the proximity of Key Roads suitable for passenger cars.
- Roads to project sites, research or management areas that cannot be accessed by short-term, temporary roads, or by means other than high clearance vehicles.
- Roads that extend state and county roads and give needed long-term access.
- Long-term roads with only periodic or seasonal restrictions.

- Roads that access developed sites, wilderness trailheads, multiple resource management areas, research areas, and special sites and facilities that require permanent vehicle access (for example fire lookouts, electronic communication sites).

- Long-term roads that are supported by cooperative share-cost agreements or other partnerships and open to public travel.

- Roads critical for long term administrative needs such as fire suppression.

- A single road selection from alternative routes to the same area, site or destination that will generate the least amount of negative resource impacts (An example is selecting a ridge-top road over one within a riparian zone that meets the same destination access needs).

- Roads under special use or road use permit.

VIII. NON-KEY FOREST ROADS

Roads that are not selected as a **Key Forest Road** will generally be candidates for some form of treatment that stabilizes their erosion potential and reduces their impact on the resources. These roads will be considered for closure, stabilization, or, if unneeded decommissioning. Their status will be determined with input from watershed, district, or project planning, NEPA, or as travel management plans are developed in response to local resource and social issues. Declining road maintenance budgets will also be a factor. Non-Key Forest Roads that pose an immediate threat to resources may require a physical barrier to eliminate traffic or may be decommissioned.

Errata Correction Sheet (02/09/2001)

Willamette National Forest

Pilot Road Analysis

Page 5 Executive Summary

1.2. Key Analysis Results and Findings

Second paragraph should read:

- Economics alone (financial efficiency) does not support large-scale road ~~closures or~~ decommissioning in spite of the current imbalance in funding available for road system management.

Appendix A: Economics Process Paper

Page A-5, Item 3 of the 5th paragraph should read:

3. To close the same road would cost $2,000 for closure, $100 a year in minimal maintenance. ~~and $1,600 expected every 10 years for repairs.~~

Page A-5, Item 3 of the 6th paragraph should read:

The goal is to find which scenario(s) prove to be financial viable over the next 20 years by requiring a 20 year discounted investment less than the no change alternative. Under the above assumptions, the no change scenario would require a discounted investment of $5,459. To decommission the same road would require an upfront investment of $10,000 with no additional expenses expected. The second scenario does not make sense to implement for solely fiscal reasons. It is far cheaper to maintain the road at $5,459 as opposed to spending $10,000 to decommission. To close the road would require a discounted investment of ~~$5,270~~ $3459. In other words it would be cheaper to close the road than to keep it open. ~~however, the two scenarios are very close~~.

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Tables

Figures

Maps